

# **Data Repository on a Distributed Mobile Platform**

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## **ABSTRACT**

Distributed systems are found almost everywhere in today's computer environment and they are used for a wide variety of tasks ranging from routine office work done on typical personal computers to cutting-edge scientific research performed in high-end machines. They are becoming more and more sophisticated as time goes by as a result of the work earned out by a large number of researchers and the experience gained by professionals who use distributed systems. This trend is expected to continue in the foreseeable future, resulting in more and more advanced applications.

The rapid growth in the use of mobile phones and the increasing computing power of these devices has resulted in mobile platforms becoming increasingly important in the domain of information and communication technology. These platforms that barely existed a decade ago, have now become one of the most interesting research areas. At the same time, they are becoming more and more sophisticated with each new version of the platforms. The Symbian Operating System is one of the leading platforms among such operating systems for mobile devices.

This dissertation presents the results of a research work carried out to explore the interesting intersection between distributed computing and mobile computing paradigms and the use of distributed systems in mobile platforms, which would clearly be an important domain in tomorrow's computer environment. As the outcome, a distributed data repository was built on a mobile platform with devices running Symbian Operating System and the chosen communication technology was OPRS.

This research will serve as a basis for anyone interested in implementing a distributed mobile data repository (either for academic purposes or for commercial applications). Additionally, it will also help to add a community aspect to the emerging technologies and applications in mobile computing.